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# ESTABLISHMENT OF THE BARNEY PASTURE GROWING STOCK LEVEL STUDY AREA

FINAL REPORT

# Establishment of the Barney Pasture Growing Stock Level Study Area

(COOPERATIVE AGREEMENT RM-81-181-CA)

Rocky Mountain Forest and Range Experiment Station
and
School of Forestry, Northern Arizona University

## DETERMINE GROWING STOCK LEVEL REQUIREMENTS ON HIGH PRODUCTIVITY SITES

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# INTRODUCTION

> "Study Number RM-1203.19, 'Growing stock levels for even-aged ponderosa pine in the Western United States' was initiated in 1962 for the purposes of (1) determining optimum stand densities for maximum growth of usable wood per tree and per acre over a wide range of site qualities and average stand diameters, and (2) determining growth and yield obtainable with repeated thinning.[1] A number of satellite studies in various size-site combinations throughout Province V (portions of Arizona, New Mexico, Colorado, and Utah) were anticipated for the purpose of contributing information to the westwide study replicated in other provinces in the ponderosa pine (Pinus ponderosa Laws.) region (Myers, 1967).
>
> "The Taylor Woods Growing Stock Level Study Area was established in 1962 on Unit 1 of the Fort Valley Experimental Forest ten miles north of Flagstaff, Arizona (Schubert, 1971). The Growing Stock Level (GSL) plots were located primarily in young sapling-small pole stands of 1919 origin. The average site index is 73 (Minor, 1964).
>
> "Taylor Woods is currently the only GSL study area in Province V. Lack of manpower and adequate funding have been cited as the reasons no other GSL study areas have been established in this province, although interest has been sustained throughout the Southwest for pursuing the original goals of the study" (Groman, 1980).

During the summer of 1981, three replications each of GSL treatments 60, 100, and 140 were installed on a high productivity site within the Coconino National Forest, Coconino County, Arizona, in accordance with the provisions and specifications of the study plan of Cooperative Agreement RM-81-181-CA (Groman, 1981). The plots were thinned to the appropriate growing stock levels in May, 1982.

The following report describes the study area location, history, and characteristics, and outlines the procedures and methods used for subplot establishment. Also attached are the subplot individual tree data.

[1]Problem Analysis and Working Plan (FS-RM-1203) "Culture of Ponderosa Pine Forests in the Southwest. Problem III--Uncertain relationships between stand density and timber quantity and quality for ponderosa pine, mixed conifer, and aspen forests". Approved 1976. On file at the Rocky Mountain Forest and Range Experiment Station, U.S.D.A. Forest Service, Flagstaff, Arizona.

BARNEY PASTURE GROWING STOCK LEVEL STUDY AREA

## Location

The nine subplots are situated within the NE¼ of Section 25, Township 19 North, Range 5 East, G.&S.R.B.&M., to the east and within one-half mile of Barney Tank (Figure 1). The area is approximately 17 air miles and 30 road miles southwest of Flagstaff; access is provided by Forest Service Roads 231 (Woody Mountain Road), 792, and passable non-maintained access roads from the 1965 planting operations.

## Area Characteristics

Subplot elevations range from 6800 to 6900 feet. Plots 1, 2, and 3 have a slight northeasterly aspect, Plot 9 is situated on a five percent southwesterly slope, and the remaining plots are level.

Soils within the study area are designated as belonging to the Soldier-Hogg association, and are described as "soils on limestone and sandstone plateaus and mountains...moderately deep to deep, gravelly or cobbly loam to clayey soils on limestone and calcareous sandstone. 2 to 30 percent slopes" (Soil Conservation Service, 1972).

> "This association consists of deep clayey soils on scattered bodies of the higher plateaus and mesas of limestone and calcareous sandstone. The higher parts of the Kaibab plateau north of the Grand Canyon makes up the largest body. Vegetation is fairly open woodland consisting of ponderosa pine, Douglas and white fir, aspen, and some Gambel oak, juniper, and pinyon pine. Understory grasses are mountain muhly, Arizona fescue, pine dropseed, blue grama, and dropseeds. A few areas of big sage occur in some litter. Annual precipitation, about one-half snowfall, ranges from 18 to 30 inches, mean annual air temperature is 40° to 44° F., and the frost-free season is about 90 to 120 days. Elevations range from 6500 to 9000 feet. This association makes up about 10 percent of the county."

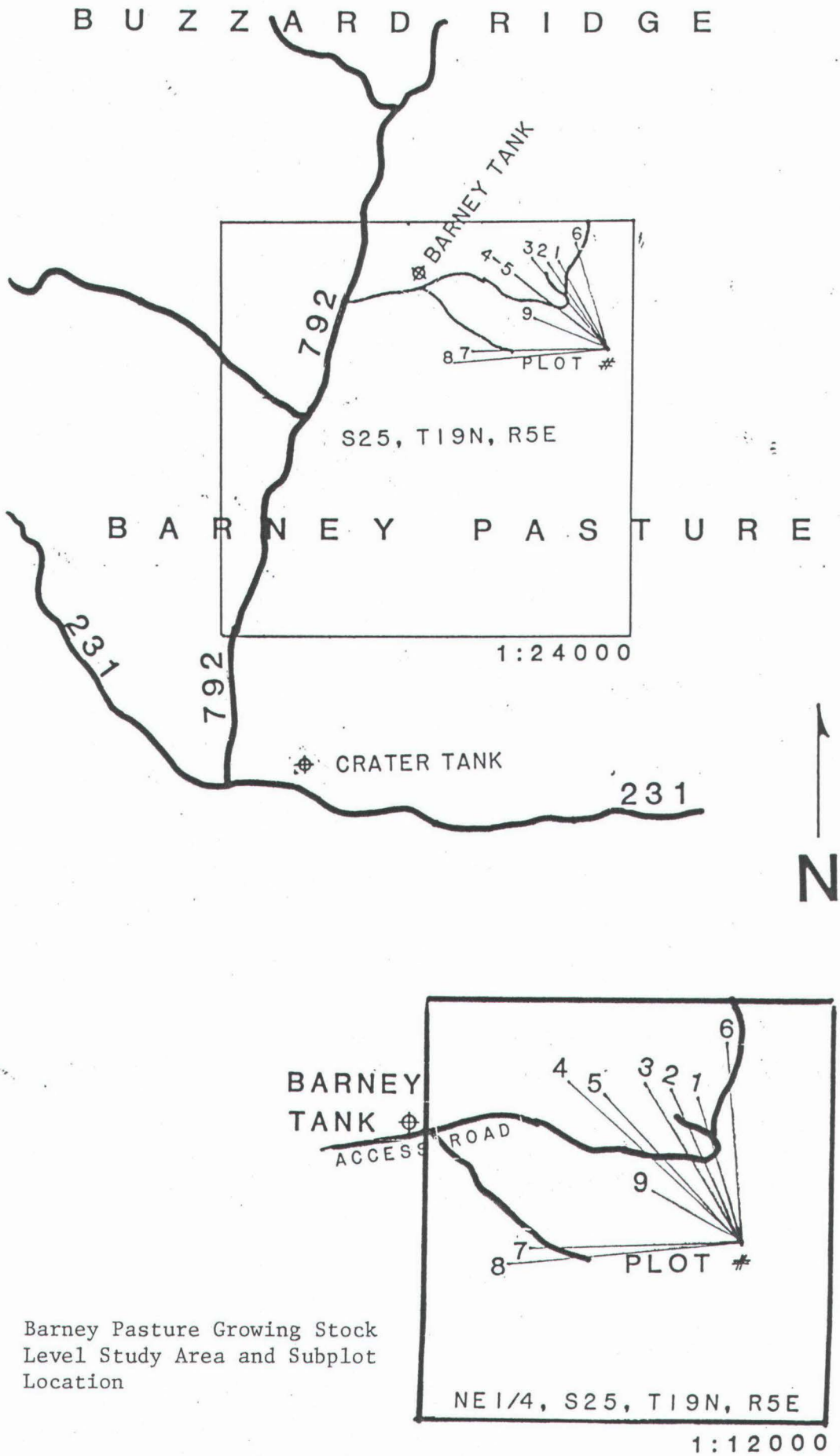


Figure 1. Barney Pasture Growing Stock Level Study Area and Subplot Location

"...soils in this association are used for timber production, wildlife habitat, summer livestock grazing, and recreation. Soldier soils rate high in timber production" (Soil Conservation Service, 1972).

Site

Due to the juvenile age of the subplot trees within the study area, site values were determined on more mature dominant trees within and adjacent to the study area (Groman, 1980). The average site index was 95, with an indices range of 85 to 105 (Minor, 1964). These values are consistent with those derived throughout the Soldier-Hogg association (Groman, 1980).

History of the Study Area

Prior to planting operations in 1949 and 1965, Barney Pasture had a long history of poor stocking due to grazing beginning in the late 1800s and periodic fires. In the Fall of 1948, the Barney Pasture Fire encompassed approximately one square mile, mainly to the immediate west of but with spots within the Barney Pasture Growing Stock Level Study Area. One hundred and fifteen acres to the west of the study area were planted with Montezuma (southwest Colorado) ponderosa pine stock in 1949.[2]

In May and June, 1965, an additional 380 acres were machine-planted following site preparation with 2-0 and 2-1 Coconino National Forest ponderosa pine stock. A substantial number of ponderosa pine volunteers were established between 1965 and 1970 due to the site preparation. The Barney Pasture Growing Stock Level Study Area is located within the 1965 plantation.

[2]Complete Barney Pasture Plantation establishment and inspection reports are on file at the Flagstaff District Ranger Station, Coconino National Forest, Flagstaff, Arizona.

The plantation was fenced in 1964 due to cattle grazing in the 1949 planting. Plantation examination reports indicate that some damage had occurred from Prescott scale, tip moth, freezing, drought, and sod grass competition.

Overall, survival and growth of the entire plantation are good to excellent except for the south and west slopes of Buzzard Ridge. The Flagstaff District has certified the plantation as established.

## SUBPLOT ESTABLISHMENT

### Selection

A number of potential subplot sites within the study area were examined in July, 1981. Following visual inspection for apparent uniformity of size and stocking, a temporary 0.05 acre plot was established within each potential subplot and all trees measured and recorded for DBH. A stand table was then constructed for each 0.05 acre plot, and the nine subplot areas with the most similar landform and stand structure characteristics were selected as the permanent subplots.

Three replications each of Growing Stock Levels 60, 100, and 140 were randomly assigned.

### Installation Procedures

The corners and boundaries of the 0.10 acre subplots were determined by staff compass and engineers tape. Corners were marked by eighteen-inch metal stakes driven into the ground, and the boundaries temporarily designated by twine or flagging.

Subplots 1, 2, 5, 6, 7, and 8 are square (66 ft. X 66 ft.); the remaining three subplots were laid out as rectangles to obtain maximum

uniformity in stand structure. Table 1 lists side bearings and distances for each subplot.

| Subplot No. | GSL | Long side bearing | Long side distance (ft.) | Short side bearing | Short side distance (ft). |
|---|---|---|---|---|---|
| 1 | 60 | Due N | 66 | Due E | 66 |
| 2 | 100 | Due N | 66 | Due E | 66 |
| 3 | 140 | N 50 W | 99 | S 40 W | 44 |
| 4 | 60 | N 50 W | 132 | N 40 E | 33 |
| 5 | 140 | N 55 W | 66 | N 35 E | 66 |
| 6 | 100 | N 80 W | 66 | N 10 E | 66 |
| 7 | 100 | N 30 W | 66 | N 60 E | 66 |
| 8 | 140 | N 61 W | 66 | N 29 E | 66 |
| 9 | 60 | N 75 W | 76.42 | N 15 E | 57.00 |

Table 1. Side bearings and distances for 0.10 acre subplots. Barney Pasture Growing Stock Level Study Area.

Every tree within each subplot was numbered with a temporary cardboard tag, the DBH was measured to the nearest 0.10 inch and recorded, and a "suitability for leave tree" designation code assigned.

Growing Stock Level Calibration

Residual trees within each GSL subplot were selected in the field by observation and consideration of diameter, spacing, crown class, and tree quality. A programmable, hand-held, battery operated HP19C printing calculator allowed the current subplot number of trees, average quadratic DBH, total basal area, and equivalent GSL to be calculated directly as a leave tree was selected. In essence, the subplot stand was "built" by successively

entering trees selected as residuals into the data pool until the desired GSL had been approximated. The program also had the capacity to add or subtract trees for the final calibration.

GSL was determined by the equation

$$GSL = \frac{\text{Actual number of trees X 1/plot size}}{10^3 - 0.07367(SD)}$$

where $10^3 - 0.07367(SD)$ = average number of trees per acre for 100 GSL and (SD) = stand average quadratic DBH.

Varying plot size could be entered into the program variables for handling both subplots and buffer zones.

Individual Tree Measurement, Classification, and Recording

Diameters at breast height to the nearest 0.10 inch were previously measured and recorded during the original before thinning subplot inventory. After the residuals had been determined, the height of each leave tree was measured to the nearest 0.10 foot by sighting on a collapsible twenty-five-foot fiberglass leveling rod. Crown class and tree quality of each tree were determined by the criteria used at Taylor Woods (Table 2).

The breast high ages of six randomly selected dominant trees were measured on each subplot. Table 3 portrays before and after thinning subplot parameters; the individual tree data are attached to this report. All original field notes have been retained at the School of Forestry, Northern Arizona University.

Buffer Zones

A twenty-foot buffer zone was installed around each subplot, using

Table 2.--Crown classification and tree condition code used to describe trees immediately after thinning and subsequently

## Crown Classification System

Describe crown appearance by a two-digit number. The first digit designates crown class, the second crown quality.

Crown class:

| | | | |
|---|---|---|---|
| 0 | Isolated | 2 Codominant | 4 Overtopped |
| 1 | Dominant | 3 Intermediate | |

Crown quality:

1 Crown 1/3 or more of tree length, live branches on all sides
2 " " absent on 1/4 crown
3 " " " more than 1/4 crown
4 " shorter than 1/3 tree length, live branches on all sides
5 " " absent on 1/4 crown
6 " " " more than 1/4 crown
7 " broken by wind or logging

## Tree Condition Class

00 No apparent defect
01 Unmerchantable - fork or crotch
02 Fork or crotch below 18 feet
03 " above "
09 Merchantable - spike top

10 Unmerchantable - spike top or complete girdle below 18 feet
11 Unmerchantable - crook or sweep
12 " limby
13 Leans more than 4°
14 Merchantable - crook or sweep

20 Mistletoe - light in crown
21 " heavy "
22 " light on bole
23 " heavy "
24 " on bole and crown
25 " top dead

30 Squirrel - light
31 " medium
32 " heavy
33 Porcupine - partial girdle in crown
34 " " below "
35 " complete girdle

40 Rust - new in crown
41 " advanced in crown
42 " new in bole
43 " advanced in bole
44 Elytroderma in crown

50 Tipmoth - light
51 " heavy
52 Dendroctonus present
53 Ips "

60 Lightning - top dead
61 " bole split
62 " scar on 1/4 bole
63 " " over 1/4 bole
64 Fire scar on 1/4 bole at base
65 " over 1/4 bole at base
66 " - bark burnt on 1/2 bole at base
67 " " completely at base

70 Snow bend - less than 30°
71 " from 30 to 45°
72 " more than 45°
73 " - top broken
74 Wind "
76 Lightning "

80 Logging damage - tree bent
81 " top broken
82 " bole wound above breast ht.
83 " wound at base
84 " live branches raked off

90 Dead - lightning
91 " wind
92 " insects
93 " rust
94 " dwarf mistletoe
95 " suppressed
96 " root rot
97 " cut or poisoned
98 " other (squirrel, snow bend, logging)
99 " unidentified

BARNEY PASTURE GROWING STOCK LEVEL STUDY - 0.1-ACRE PLOT SUMMARIES

| | BEFORE THINNING | | | | AFTER THINNING | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Plot (GSL) | Number of Trees | Total Basal Area | Average Quadratic DBH (in.) | Actual Growing Stock Level | Number of Trees | Total Basal Area | Average Quadratic DBH (in.) | Average Height (ft.) | Average Breast High Age (Dominants) | Actual Growing Stock Level |
| 1 (60) | 236 | 2.605 | 1.42 | 300.41 | 40 | 1.267 | 2.41 | 9.66 | 9.7 | 60.20 |
| 2 (100) | 233 | 2.014 | 1.26 | 288.47 | 71 | 1.554 | 2.00 | 8.47 | 9.8 | 100.27 |
| 3 (140) | 192 | 4.248 | 2.01 | 270.01 | 91 | 3.105 | 2.50 | 10.28 | 11.2 | 139.09 |
| 4 (60) | 193 | 1.629 | 1.24 | 238.34 | 42 | 0.996 | 2.08 | 8.78 | 9.5 | 59.82 |
| 5 (140) | 224 | 2.127 | 1.32 | 280.19 | 101 | 1.963 | 1.89 | 7.76 | 11.3 | 139.13 |
| 6 (100) | 495 | 4.680 | 1.32 | 618.88 | 65 | 2.347 | 2.57 | 10.07 | 12.5 | 99.44 |
| 7 (100) | 320 | 2.382 | 1.17 | 390.13 | 73 | 1.149 | 1.70 | 8.25 | 10.8 | 97.38 |
| 8 (140) | 283 | 3.881 | 1.59 | 370.34 | 96 | 2.523 | 2.19 | 9.37 | 12.0 | 139.31 |
| 9 (60) | 309 | 4.225 | 1.59 | 404.59 | 39 | 1.404 | 2.57 | 10.01 | 11.8 | 60.44 |
| Plot Averages | 276 | 3.088 | 1.43 | 351.90 | 69 | 1.812 | 2.20 | 9.18 | 11.0 | 99.73 |

Table 3. Before and after thinning subplot parameters, Barney Pasture Growing Stock Level Study Area.

the same procedure employed to calibrate the subplot GSLs. Each buffer zone GSL duplicated the appropriate subplot GSL.

## Thinning Operations

The subplots and buffer zones were thinned in May, 1982. Trees were severed as close to the ground as possible. All debris from the operations was removed from the subplots and buffer zones and piled in open areas beyond the buffer zones.

Numbered metal tags were attached to each subplot leave tree.

## Schedule

The following schedule is suggested.

1986 - Five-year remeasurement and growth analysis.

1991 - Ten-year remeasurement, growth analysis, recalibration, and manuscript preparation.

1996 - Fifteen-year remeasurement and growth analysis.

2001 - Twenty-year remeasurement, growth analysis, and manuscript preparation.

## LIST OF REFERENCES


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Myers, Clifford A. 1967. Growing stock levels in even-aged ponderosa pine. U.S. Forest Service Research Paper RM-33.

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# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 1 **GSL** 60 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 1 | 3.5 | 12.0 | 1 | 00 | 9 | |
| 2 | 2.6 | 11.8 | 1 | 00 | 8 | |
| 3 | 2.7 | 10.3 | 2 | 00 | | |
| 4 | 1.2 | 7.7 | 3 | 00 | | |
| 5 | 2.8 | 11.2 | 2 | 00 | | |
| 6 | 3.6 | 10.4 | 2 | 00 | | |
| 7 | 2.3 | 11.4 | 2 | 00 | | |
| 8 | 2.1 | 10.0 | 2 | 00 | | |
| 9 | 1.9 | 8.7 | 2 | 00 | | |
| 10 | 2.5 | 10.4 | 2 | 00 | | |
| 11 | 2.3 | 9.5 | 2 | 50 | | |
| 12 | 2.5 | 9.5 | 2 | 50 | | |
| 13 | 1.0 | 7.7 | 3 | 00 | | |
| 14 | 0.4 | 5.4 | 3 | 00 | | |
| 15 | 3.3 | 11.4 | 1 | 50 | | |
| 16 | 1.8 | 8.2 | 2 | 00 | | |
| 17 | 4.5 | 14.0 | 1 | 00 | 11 | |
| 18 | 2.2 | 9.4 | 2 | 00 | | |
| 19 | 2.0 | 8.6 | 2 | 50 | | |
| 20 | 3.7 | 12.6 | 1 | 00 | 10 | |
| 21 | 1.2 | 7.4 | 3 | 00 | | |
| 22 | 2.9 | 10.9 | 2 | 00 | | |
| 23 | 2.6 | 10.0 | 2 | 50 | | |
| 24 | 2.2 | 10.0 | 2 | 50 | | |
| 25 | 3.2 | 12.2 | 1 | 00 | 11 | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 1 **GSL** 60 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 26 | 1.9 | 10.0 | 2 | 50 | | |
| 27 | 1.6 | 8.0 | 2 | 50 | | |
| 28 | 1.2 | 7.3 | 2 | 50 | | |
| 29 | 1.6 | 7.3 | 2 | 50 | | |
| 30 | 1.3 | 8.0 | 2 | 50 | | |
| 31 | 1.8 | 8.7 | 2 | 50 | | |
| 32 | 0.5 | 6.0 | 3 | 00 | | |
| 33 | 3.2 | 12.6 | 1 | 00 | 9 | |
| 34 | 2.1 | 10.6 | 2 | 00 | | |
| 35 | 2.2 | 10.3 | 2 | 00 | | |
| 36 | 1.8 | 9.2 | 2 | 50 | | |
| 37 | 2.6 | 9.0 | 2 | 50 | | |
| 38 | 2.0 | 9.3 | 2 | 50 | | |
| 39 | 2.8 | 10.2 | 1 | 50 | | |
| 40 | 2.5 | 9.3 | 2 | 50 | | |
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# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 2 **GSL** 100 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 1 | 2.5 | 9.9 | 1 | 00 | 8 | |
| 2 | 1.0 | 7.6 | 2 | 50 | | |
| 3 | 2.0 | 10.7 | 1 | 50 | | |
| 4 | 2.1 | 8.5 | 2 | 50 | | |
| 5 | 1.5 | 8.3 | 2 | 00 | | |
| 6 | 0.4 | 5.5 | 3 | 50 | | |
| 7 | 0.4 | 5.9 | 3 | 50 | | |
| 8 | 0.0 | 4.0 | 3 | 50 | | |
| 9 | 0.5 | 6.0 | 2 | 00 | | |
| 10 | 1.6 | 8.7 | 2 | 00 | | |
| 11 | 3.0 | 12.2 | 1 | 00 | 9 | |
| 12 | 2.5 | 10.5 | 1 | 00 | | |
| 13 | 1.7 | 9.3 | 2 | 50 | | |
| 14 | 3.0 | 12.0 | 2 | 50 | | |
| 15 | 2.6 | 10.8 | 2 | 00 | | |
| 16 | 2.4 | 9.9 | 2 | 00 | | |
| 17 | 2.1 | 9.2 | 2 | 50 | | |
| 18 | 2.8 | 10.2 | 2 | 00 | | |
| 19 | 3.2 | 12.1 | 2 | 00 | | |
| 20 | 2.9 | 12.7 | 2 | 00 | | |
| 21 | 0.0 | 3.2 | 3 | 50 | | |
| 22 | 1.7 | 8.8 | 2 | 14 | | |
| 23 | 2.0 | 8.0 | 2 | 50 | | |
| 24 | 2.6 | 9.4 | 2 | 00 | | |
| 25 | 0.0 | 3.7 | 3 | 00 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 2 **GSL** 100 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 26 | 1.6 | 8.0 | 2 | 50 | | |
| 27 | 3.3 | 10.6 | 2 | 00 | | |
| 28 | 2.1 | 10.0 | 2 | 00 | | |
| 29 | 2.6 | 12.5 | 1 | 00 | 11 | |
| 30 | 3.2 | 11.2 | 2 | 00 | | |
| 31 | 0.9 | 6.4 | 3 | 50 | | |
| 32 | 1.0 | 7.8 | 2 | 50 | | |
| 33 | 1.6 | 8.4 | 2 | 50 | | |
| 34 | 0.6 | 6.5 | 3 | 50 | | |
| 35 | 3.3 | 12.0 | 1 | 00 | 13 | |
| 36 | 2.1 | 9.5 | 2 | 00 | | |
| 37 | 2.1 | 8.2 | 2 | 00 | | |
| 38 | 1.8 | 9.0 | 2 | 00 | | |
| 39 | 1.7 | 9.4 | 2 | 00 | | |
| 40 | 1.0 | 6.6 | 3 | 00 | | |
| 41 | 1.8 | 9.4 | 2 | 00 | | |
| 42 | 1.0 | 6.8 | 2 | 50 | | |
| 43 | 1.8 | 8.7 | 2 | 14 | | |
| 44 | 2.6 | 10.4 | 1 | 00 | 9 | |
| 45 | 2.2 | 9.6 | 2 | 50 | | |
| 46 | 1.2 | 7.7 | 3 | 00 | | |
| 47 | 1.9 | 8.6 | 2 | 51 | | |
| 48 | 0.8 | 7.0 | 3 | 00 | | |
| 49 | 1.3 | 8.4 | 2 | 50 | | |
| 50 | 2.7 | 9.8 | 2 | 50 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 2 **GSL** 100 **PAGE** 3 / 3

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 51 | 2.1 | 8.5 | 2 | 51 | | |
| 52 | 1.8 | 8.0 | 2 | 51 | | |
| 53 | 5.7 | 17.0 | 1 | 00 | | |
| 54 | 0.6 | 6.0 | 3 | 00 | | |
| 55 | 0.5 | 5.5 | 3 | 00 | | |
| 56 | 0.4 | 4.6 | 3 | 00 | | |
| 57 | 0.7 | 6.2 | 3 | 14 | | |
| 58 | 2.0 | 9.3 | 2 | 14 | | |
| 59 | 2.6 | 10.0 | 2 | 50 | | |
| 60 | 2.5 | 11.0 | 2 | 50 | | |
| 61 | 1.9 | 7.8 | 2 | 51 | | |
| 62 | 3.2 | 9.8 | 1 | 00 | 9 | |
| 63 | 1.4 | 7.8 | 3 | 50 | | |
| 64 | 0.9 | 6.8 | 3 | 00 | | |
| 65 | 0.7 | 6.6 | 3 | 50 | | |
| 66 | 0.6 | 6.2 | 3 | 00 | | |
| 67 | 0.4 | 5.1 | 3 | 51 | | |
| 68 | 1.4 | 8.1 | 2 | 50 | | |
| 69 | 0.3 | 5.4 | 3 | 50 | | |
| 70 | 0.0 | 3.9 | 3 | 51 | | |
| 71 | 1.2 | 8.4 | 2 | 00 | | |
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# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 3 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 1 | 3.2 | 12.3 | 1 | 50 | | |
| 2 | 2.6 | 10.8 | 2 | 50 | | |
| 3 | 1.8 | 9.0 | 2 | 00 | | |
| 4 | 2.7 | 10.0 | 2 | 50 | | |
| 5 | 0.0 | 2.9 | 3 | 00 | | |
| 6 | 4.0 | 14.0 | 1 | 50 | | |
| 7 | 3.4 | 12.2 | 2 | 00 | | |
| 8 | 3.4 | 12.4 | 2 | 00 | | |
| 9 | 3.1 | 12.3 | 2 | 50 | | |
| 10 | 3.2 | 13.0 | 2 | 50 | | |
| 11 | 2.6 | 11.0 | 2 | 00 | | |
| 12 | 1.8 | 8.9 | 3 | 50 | | |
| 13 | 3.4 | 12.6 | 1 | 00 | 11 | |
| 14 | 2.9 | 11.0 | 2 | 50 | | |
| 15 | 2.6 | 10.4 | 2 | 00 | | |
| 16 | 1.2 | 8.0 | 3 | 50 | | |
| 17 | 2.8 | 11.2 | 2 | 00 | | |
| 18 | 3.0 | 13.0 | 2 | 00 | | |
| 19 | 1.9 | 9.8 | 2 | 00 | | |
| 20 | 1.9 | 9.9 | 2 | 50 | | |
| 21 | 1.8 | 9.0 | 2 | 50 | | |
| 22 | 1.5 | 9.2 | 3 | 00 | | |
| 23 | 3.8 | 13.0 | 1 | 00 | 11 | |
| 24 | 2.0 | 10.0 | 2 | 00 | | |
| 25 | 1.5 | 9.5 | 2 | 50 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 3 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 26 | 1.3 | 8.3 | 2 | 00 | | |
| 27 | 1.7 | 9.3 | 2 | 00 | | |
| 28 | 3.7 | 13.2 | 2 | 00 | | |
| 29 | 2.9 | 10.3 | 1 | 00 | 12 | |
| 30 | 3.4 | 12.7 | 2 | 00 | | |
| 31 | 1.9 | 8.8 | 2 | 50 | | |
| 32 | 1.6 | 8.7 | 2 | 50 | | |
| 33 | 2.3 | 10.9 | 1 | 00 | | |
| 34 | 0.0 | 2.4 | 4 | 00 | | |
| 35 | 2.8 | 11.3 | 1 | 50 | 10 | |
| 36 | 2.1 | 9.3 | 2 | 50 | | |
| 37 | 3.3 | 13.3 | 1 | 50 | | |
| 38 | 3.0 | 13.1 | 2 | 00 | | |
| 39 | 2.3 | 10.2 | 2 | 00 | | |
| 40 | 2.6 | 10.7 | 2 | 00 | | |
| 41 | 2.3 | 10.4 | 2 | 50 | | |
| 42 | 3.2 | 10.8 | 2 | 51 | | |
| 43 | 2.2 | 9.3 | 2 | 51 | | |
| 44 | 1.9 | 9.7 | 2 | 50 | | |
| 45 | 0.4 | 5.9 | 3 | 50 | | |
| 46 | 2.2 | 10.6 | 2 | 50 | | |
| 47 | 2.7 | 11.0 | 2 | 50 | | |
| 48 | 2.9 | 10.8 | 2 | 00 | | |
| 49 | 2.7 | 10.2 | 2 | 51 | | |
| 50 | 0.5 | 6.3 | 3 | 50 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 3 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 51 | 1.4 | 8.5 | 3 | 50 | | |
| 52 | 2.3 | 10.4 | 2 | 00 | | |
| 53 | 1.6 | 9.0 | 2 | 50 | | |
| 54 | 2,3 | 9.3 | 2 | 00 | | |
| 55 | 2.7 | 12.0 | 2 | 00 | | |
| 56 | 1.9 | 9.1 | 2 | 50 | | |
| 57 | 2.4 | 10.0 | 2 | 50 | | |
| 58 | 1.9 | 9.2 | 2 | 00 | | |
| 59 | 3.0 | 11.4 | 2 | 00 | | |
| 60 | 1.6 | 9.3 | 3 | 50 | | |
| 61 | 3.1 | 11.0 | 2 | 50 | | |
| 62 | 2.9 | 12.2 | 2 | 50 | | |
| 63 | 3.5 | 13.0 | 2 | 50 | | |
| 64 | 1.7 | 9.0 | 2 | 50 | | |
| 65 | 3.2 | 12.6 | 1 | 50 | | |
| 66 | 1.4 | 8.2 | 3 | 00 | | |
| 67 | 2.3 | 9.8 | 2 | 00 | | |
| 68 | 2.6 | 10.3 | 2 | 00 | | |
| 69 | 1.7 | 8.3 | 3 | 50 | | |
| 70 | 0.6 | 6.4 | 3 | 00 | | |
| 71 | 1.7 | 8.8 | 2 | 50 | | |
| 72 | 3.1 | 10.5 | 2 | 50 | | |
| 73 | 2.3 | 10.0 | 2 | 50 | | |
| 74 | 3.2 | 11.4 | 2 | 50 | | |
| 75 | 1.7 | 8.5 | 2 | 00 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 3 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 76 | 1.7 | 8.6 | 2 | 50 | | |
| 77 | 0.7 | 7.0 | 3 | 00 | | |
| 78 | 2.3 | 10.2 | 2 | 50 | | |
| 79 | 2.5 | 10.7 | 2 | 00 | | |
| 80 | 2.3 | 10.2 | 2 | 00 | | |
| 81 | 2.7 | 11.3 | 1 | 50 | | |
| 82 | 1.8 | 9.4 | 2 | 00 | | |
| 83 | 2.5 | 13.0 | 2 | 00 | | |
| 84 | 4.3 | 14.0 | 2 | 00 | | |
| 85 | 2.8 | 11.8 | 2 | 00 | | |
| 86 | 3.5 | 14.2 | 1 | 00 | 12 | |
| 87 | 1.7 | 9.1 | 3 | 00 | | |
| 88 | 1.6 | 9.0 | 3 | 50 | | |
| 89 | 2.7 | 11.6 | 2 | 50 | | |
| 90 | 2.5 | 11.0 | 2 | 50 | | |
| 91 | 3.9 | 13.6 | 1 | 00 | 11 | |
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# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 4 **GSL** 60 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 1 | 0.8 | 5.8 | 2 | 00 | | |
| 2 | 2.4 | 10.0 | 1 | 00 | 8 | |
| 3 | 1.7 | 7.7 | 2 | 00 | | |
| 4 | 2.1 | 10.1 | 1 | 00 | | |
| 5 | 2.5 | 9.8 | 1 | 00 | 8 | |
| 6 | 2.2 | 9.4 | 1 | 50 | | |
| 7 | 2.3 | 7.4 | 2 | 00 | | |
| 8 | 1.3 | 6.9 | 3 | 00 | | |
| 9 | 2.6 | 9.4 | 1 | 00 | | |
| VOID | | VOID | | VOID | | |
| 11 | 1.6 | 8.4 | 2 | 50 | | |
| 12 | 1.0 | 7.2 | 2 | 00 | | |
| VOID | | VOID | | VOID | | |
| 14 | 3.3 | 13.2 | 1 | 00 | 10 | |
| 15 | 2.7 | 11.1 | 1 | 00 | | |
| 16 | 1.1 | 7.3 | 2 | 50 | | |
| 17 | 1.2 | 6.9 | 2 | 00 | | |
| 18 | 1.4 | 8.1 | 2 | 50 | | |
| 19 | 2.6 | 9.4 | 2 | 00 | | |
| 20 | 1.3 | 8.0 | 2 | 00 | | |
| VOID | | VOID | | VOID | | |
| 22 | 1.0 | 7.0 | 2 | 50 | | |
| 23 | 2.1 | 10.4 | 1 | 00 | 11 | |
| 24 | 2.3 | 8.6 | 2 | 50 | | |
| 25 | 0.9 | 6.0 | 3 | 50 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 4 **GSL** 60 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 26 | 1.2 | 7.7 | 2 | 00 | | |
| 27 | 1.3 | 7.4 | 2 | 50 | | |
| 28 | 3.9 | 14.0 | 1 | 50 | | |
| 29 | 1.3 | 8.6 | 2 | 00 | | |
| 30 | 1.6 | 8.7 | 2 | 00 | | |
| VOID | | VOID | | VOID | | |
| 32 | 1.1 | 6.9 | 2 | 00 | | |
| VOID | | VOID | | VOID | | |
| 34 | 0.9 | 6.9 | 3 | 51 | | |
| 35 | 1.4 | 8.0 | 3 | 00 | | |
| 36 | 3.3 | 12.3 | 1 | 50 | | |
| 37 | 1.5 | 7.7 | 2 | 50 | | |
| 38 | 3.0 | 12.4 | 1 | 00 | 10 | |
| 39 | 2.5 | 10.2 | 2 | 00 | | |
| 40 | 4.0 | 13.2 | 1 | 00 | 10 | |
| 41 | 2.6 | 9.0 | 2 | 50 | | |
| 42 | 2.0 | 8.6 | 2 | 50 | | |
| 43 | 1.8 | 8.8 | 2 | 50 | | |
| 44 | 1.1 | 6.7 | 3 | 50 | | |
| 45 | 1.3 | 8.0 | 2 | 00 | | |
| 46 | 3.1 | 9.8 | 2 | 51 | | |
| 47 | 0.5 | 5.8 | 3 | 50 | | |
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# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 5 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 1 | 2.3 | 9.4 | 2 | 50 | | |
| 2 | 2.4 | 8.3 | 2 | 50 | | |
| 3 | 0.7 | 6.6 | 3 | 00 | | |
| 4 | 0.0 | 2.4 | 4 | 00 | | |
| 5 | 1.4 | 8.6 | 2 | 00 | | |
| 6 | 2.2 | 10.3 | 2 | 00 | | |
| 7 | 4.4 | 13.5 | 1 | 00 | 15 | |
| 8 | 1.9 | 9.4 | 3 | 00 | | |
| 9 | 1.4 | 7.9 | 2 | 50 | | |
| 10 | 0.4 | 5.1 | 4 | 00 | | |
| 11 | 3.0 | 13.0 | 1 | 00 | 9 | |
| 12 | 0.0 | 3.4 | 4 | 00 | | |
| 13 | 1.4 | 8.5 | 2 | 00 | | |
| 14 | 2.8 | 11.9 | 2 | 50 | | |
| 15 | 0.5 | 6.0 | 3 | 00 | | |
| 16 | 1.7 | 8.2 | 2 | 50 | | |
| 17 | 1.8 | 8.8 | 2 | 00 | | |
| 18 | 0.4 | 5.0 | 3 | 00 | | |
| 19 | 2.9 | 10.3 | 2 | 50 | | |
| 20 | 1.9 | 9.4 | 2 | 00 | | |
| 21 | 2.0 | 9.4 | 2 | 00 | | |
| 22 | 0.0 | 2.6 | 4 | 00 | | |
| 23 | 1.0 | 7.3 | 3 | 00 | | |
| 24 | 0.4 | 5.2 | 3 | 00 | | |
| 25 | 1.2 | 7.3 | 3 | 00 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 5 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 26 | 0.0 | 1.9 | 4 | 00 | | |
| 27 | 1.4 | 7.7 | 2 | 00 | | |
| 28 | 1.1 | 7.6 | 2 | 50 | | |
| 29 | 3.5 | 12.0 | 1 | 50 | | |
| 30 | 0.0 | 4.4 | 4 | 00 | | |
| 31 | 2.5 | 9.9 | 2 | 00 | | |
| 32 | 1.3 | 7.9 | 2 | 50 | | |
| 33 | 3.7 | 13.8 | 1 | 00 | 13 | |
| 34 | 1.7 | 9.1 | 2 | 50 | | |
| 35 | 1.2 | 7.4 | 2 | 50 | | |
| 36 | 0.0 | 3.7 | 4 | 00 | | |
| 37 | 0.4 | 4.8 | 3 | 00 | | |
| 38 | 0.0 | 2.0 | 4 | 00 | | |
| 39 | 0.0 | 3.1 | 4 | 50 | | |
| 40 | 2.0 | 8.7 | 2 | 00 | | |
| 41 | 0.4 | 5.3 | 3 | 00 | | |
| 42 | 0.0 | 2.4 | 4 | 00 | | |
| 43 | 1.8 | 9.3 | 2 | 00 | | |
| 44 | 1.8 | 9.1 | 2 | 50 | | |
| 45 | 0.7 | 6.4 | 3 | 00 | | |
| 46 | 0.4 | 4.9 | 3 | 00 | | |
| 47 | 0.0 | 3.1 | 4 | 00 | | |
| 48 | 0.5 | 5.5 | 0 | 50 | | |
| 49 | 2.1 | 9.5 | 2 | 00 | | |
| 50 | 1.4 | 8.8 | 3 | 51 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 5 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 51 | 3.2 | 13.1 | 1 | 00 | 11 | |
| 52 | 3.1 | 10.5 | 2 | 00 | | |
| 53 | 1.5 | 8.3 | 3 | 00 | | |
| 54 | 1.7 | 8.8 | 2 | 00 | | |
| 55 | 4.1 | 13.0 | 1 | 50 | | |
| 56 | 1.7 | 8.6 | 2 | 50 | | |
| 57 | 1.9 | 8.8 | 2 | 51 | | |
| 58 | 0.7 | 6.7 | 3 | 00 | | |
| 59 | 1.9 | 9.0 | 2 | 00 | | |
| 60 | 0.9 | 7.1 | 3 | 51 | | |
| 61 | 1.9 | 8.6 | 3 | 50 | | |
| 62 | 2.3 | 9.5 | 2 | 50 | | |
| 63 | 3.6 | 12.2 | 1 | 00 | | |
| 64 | 2.8 | 10.0 | 2 | 50 | | |
| 65 | 2.6 | 9.3 | 2 | 51 | | |
| 66 | 0.0 | 4.3 | 4 | 00 | | |
| 67 | 3.1 | 10.4 | 1 | 00 | 10 | |
| 68 | 2.0 | 9.8 | 3 | 50 | | |
| 69 | 3.5 | 12.2 | 1 | 00 | 10 | |
| 70 | 1.5 | 7.7 | 3 | 00 | | |
| 71 | 2.3 | 10.2 | 2 | 50 | | |
| 72 | 0.0 | 4.4 | 4 | 50 | | |
| 73 | 1.4 | 7.5 | 3 | 50 | | |
| 74 | 3.1 | 12.1 | 1 | 50 | | |
| 75 | 0.0 | 2.7 | 4 | 00 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 5 **GSL** 140 **PAGE** 4/5

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 76 | 1.0 | 6.8 | 3 | 51 | | |
| 77 | 1.1 | 7.0 | 3 | 50 | | |
| 78 | 1.7 | 8.5 | 2 | 00 | | |
| 79 | 1.7 | 8.6 | 2 | 00 | | |
| 80 | 3.4 | 11.4 | 1 | 50 | | |
| 81 | 1.9 | 8.6 | 2 | 00 | | |
| 82 | 1.5 | 8.0 | 3 | 50 | | |
| 83 | 3.0 | 9.5 | 2 | 51 | | |
| 84 | 1.6 | 8.0 | 3 | 51 | | |
| 85 | 0.3 | 5.1 | 4 | 00 | | |
| 86 | 1.5 | 8.0 | 3 | 00 | | |
| 87 | 2.6 | 10.4 | 2 | 00 | | |
| 88 | 0.0 | 4.3 | 4 | 00 | | |
| 89 | 3.1 | 11.2 | 1 | 50 | | |
| 90 | 0.6 | 6.1 | 3 | 00 | | |
| 91 | 0.0 | 3.5 | 4 | 00 | | |
| 92 | 0.3 | 5.0 | 4 | 50 | | |
| 93 | 3.0 | 11.2 | 2 | 00 | | |
| 94 | 2.9 | 11.0 | 2 | 00 | | |
| 95 | 0.3 | 5.1 | 3 | 00 | | |
| 96 | 0.4 | 5.3 | 3 | 00 | | |
| 97 | 1.4 | 8.0 | 2 | 51 | | |
| 98 | 0.0 | 4.4 | 4 | 00 | | |
| 99 | 0.4 | 5.0 | 4 | 50 | | |
| 100 | 0.3 | 4.7 | 4 | 50 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 5 **GSL** 140 **PAGE** 5 / 5

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 101 | 1.6 | 8.0 | 3 | 51 | | |
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# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 6 **GSL** 100 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 1 | 1.9 | 9.7 | 2 | 00 | | |
| 2 | 2.3 | 10.8 | 2 | 00 | | |
| 3 | 3.5 | 12.0 | 1 | 00 | 11 | |
| 4 | 2.3 | 9.6 | 2 | 00 | | |
| 5 | 2.3 | 9.6 | 2 | 00 | | |
| 6 | 4.0 | 11.6 | 2 | 00 | | |
| 7 | 1.3 | 7.4 | 3 | 50 | | |
| 8 | 2.4 | 9.7 | 2 | 00 | | |
| 9 | 1.9 | 9.1 | 2 | 50 | | |
| 10 | 2.8 | 10.5 | 2 | 50 | | |
| 11 | 1.4 | 8.4 | 3 | 00 | | |
| 12 | 2.9 | 10.9 | 2 | 50 | | |
| 13 | 4.1 | 13.8 | 1 | 50 | | |
| 14 | 3.2 | 13.1 | 1 | 00 | 10 | |
| 15 | 1.0 | 7.7 | 3 | 00 | | |
| 16 | 2.1 | 9.4 | 2 | 00 | | |
| 17 | 1.5 | 7.9 | 3 | 50 | | |
| 18 | 0.4 | 5.4 | 4 | 50 | | |
| 19 | 3.0 | 14.8 | 2 | 00 | | |
| 20 | 3.9 | 13.3 | 2 | 50 | | |
| 21 | 3.5 | 15.1 | 1 | 00 | 12 | |
| 22 | 2.3 | 11.7 | 2 | 00 | | |
| 23 | 5.0 | 16.7 | 1 | 00 | | |
| 24 | 1.8 | 10.3 | 3 | 00 | | |
| 25 | 4.4 | 16.4 | 1 | 00 | 13 | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 6 **GSL** 100 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 26 | 2.7 | 11.9 | 2 | 00 | | |
| 27 | 3.8 | 13.3 | 2 | 00 | | |
| 28 | 3.0 | 11.2 | 2 | 00 | | |
| 29 | 1.9 | 11.2 | 2 | 00 | | |
| 30 | 4.0 | 15.0 | 1 | 00 | 15 | |
| 31 | 4.0 | 14.5 | 1 | 00 | | |
| 32 | 3.1 | 14.0 | 2 | 00 | | |
| 33 | 3.6 | 14.2 | 1 | 50 | | |
| 34 | 0.5 | 5.2 | 4 | 50 | | |
| 35 | 4.4 | 14.7 | 1 | 00 | 14 | |
| 36 | 4.0 | 14.0 | 2 | 00 | | |
| 37 | 1.8 | 9.4 | 3 | 00 | | |
| 38 | 2.3 | 10.5 | 2 | 50 | | |
| 39 | 0.3 | 4.6 | 4 | 00 | | |
| 40 | 1.2 | 7.8 | 3 | 00 | | |
| 41 | 2.0 | 10.0 | 3 | 50 | | |
| 42 | 0.7 | 6.5 | 3 | 00 | | |
| 43 | 0.8 | 6.4 | 3 | 00 | | |
| 44 | 0.9 | 7.0 | 3 | 00 | | |
| 45 | 1.7 | 6.0 | 4 | 00 | | |
| 46 | 0.0 | 2.6 | 4 | 00 | | |
| 47 | 0.9 | 7.1 | 3 | 50 | | |
| 48 | 3.0 | 12.0 | 2 | 00 | | |
| 49 | 2.0 | 11.3 | 2 | 00 | | |
| 50 | 5.3 | 14.6 | 1 | 00 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 6 **GSL** 100 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 51 | 0.6 | 6.8 | 4 | 00 | | |
| 52 | 0.9 | 6.8 | 4 | 51 | | |
| 53 | 0.4 | 5.3 | 4 | 00 | | |
| 54 | 0.8 | 6.6 | 3 | 00 | | |
| 55 | 1.6 | 9.2 | 3 | 50 | | |
| 56 | 2.6 | 11.3 | 2 | 00 | | |
| 57 | 3.5 | 14.0 | 1 | 00 | | |
| 58 | 2.0 | 10.7 | 2 | 00 | | |
| 59 | 1.7 | 9.3 | 2 | 00 | | |
| 60 | 2.9 | 13.1 | 2 | 00 | | |
| 61 | 2.0 | 10.0 | 3 | 00 | | |
| 62 | 0.5 | 6.0 | 4 | 00 | | |
| 63 | 0.7 | 6.4 | 4 | 00 | | |
| 64 | 0.0 | 4.3 | 4 | 00 | | |
| 65 | 0.4 | 4.6 | 4 | 00 | | |
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# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 7 **GSL** 100 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 1 | 2.2 | 10.0 | 1 | 00 | 9 | |
| 2 | 0.3 | 5.5 | 3 | 00 | | |
| 3 | 1.7 | 8.3 | 2 | 00 | | |
| 4 | 1.0 | 9.3 | 2 | 00 | | |
| 5 | 1.2 | 7.4 | 2 | 00 | | |
| VOID | | VOID | | VOID | | |
| 7 | 2.6 | 10.3 | 2 | 50 | | |
| 8 | 2.6 | 10.3 | 2 | 50 | | |
| 9 | 4.1 | 13.3 | 1 | 50 | 11 | |
| 10 | 0.0 | 3.9 | 4 | 00 | | |
| 11 | 1.7 | 9.2 | 2 | 00 | | |
| 12 | 1.0 | 7.0 | 2 | 50 | | |
| 13 | 0.3 | 5.0 | 3 | 50 | | |
| 14 | 1.7 | 9.0 | 2 | 50 | | |
| 15 | 2.4 | 10.0 | 2 | 00 | | |
| 16 | 1.1 | 7.3 | 3 | 00 | | |
| 17 | 3.8 | 12.8 | 1 | 50 | 10 | |
| 18 | 0.0 | 3.9 | 4 | 00 | | |
| 19 | 3.1 | 13.2 | 2 | 00 | | |
| 20 | 2.2 | 11.6 | 2 | 50 | | |
| 21 | 2.4 | 11.6 | 2 | 00 | | |
| 22 | 2.4 | 12.2 | 3 | 00 | | |
| VOID | | VOID | | VOID | | |
| VOID | | VOID | | VOID | | |
| 25 | 1.1 | 7.4 | 3 | 50 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 7 **GSL** 100 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 26 | 0.0 | 4.5 | 3 | 00 | | |
| 27 | 0.0 | 2.9 | 4 | 00 | | |
| 28 | 0.3 | 5.1 | 3 | 00 | | |
| 29 | 1.9 | 8.2 | 2 | 50 | | |
| 30 | 1.0 | 7.0 | 2 | 50 | | |
| 31 | 0.8 | 6.6 | 3 | 50 | | |
| 32 | 0.6 | 6.6 | 3 | 00 | | |
| VOID | | VOID | | VOID | | |
| 34 | 0.5 | 6.4 | 3 | 51 | | |
| 35 | 2.1 | 11.5 | 1 | 00 | 9 | |
| 36 | 1.1 | 7.6 | 2 | 50 | | |
| 37 | 0.0 | 3.8 | 3 | 00 | | |
| 38 | 0.0 | 3.8 | 3 | 50 | | |
| 39 | 0.0 | 3.2 | 4 | 00 | | |
| VOID | | VOID | | VOID | | |
| 41 | 0.0 | 2.9 | 4 | 00 | | |
| 42 | 0.0 | 4.0 | 4 | 00 | | |
| 43 | 0.3 | 5.2 | 3 | 00 | | |
| 44 | 0.4 | 4.6 | 3 | 00 | | |
| 45 | 0.4 | 5.7 | 3 | 00 | | |
| 46 | 1.9 | 9.0 | 3 | 50 | | |
| 47 | 0.4 | 5.2 | 4 | 00 | | |
| 48 | 1.3 | 8.0 | 3 | 50 | | |
| 49 | 0.0 | 2.7 | 4 | 00 | | |
| 50 | 1.8 | 9.3 | 2 | 50 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 7 **GSL** 100 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 51 | 1.5 | 8.0 | 3 | 50 | | |
| 52 | 0.9 | 7.3 | 3 | 00 | | |
| 53 | 2.3 | 10.9 | 2 | 00 | | |
| 54 | 2.5 | 11.4 | 2 | 50 | | |
| 55 | 4.7 | 15.6 | 1 | 50 | 15 | |
| 56 | 1.8 | 9.3 | 2 | 50 | | |
| 57 | 0.3 | 5.7 | 3 | 50 | | |
| 58 | 2.0 | 9.9 | 3 | 00 | | |
| 59 | 0.3 | 5.8 | 3 | 50 | | |
| 60 | 0.3 | 5.4 | 3 | 00 | | |
| 61 | 0.0 | 3.4 | 4 | 00 | | |
| 62 | 2.9 | 11.2 | 1 | 50 | | |
| 63 | 1.3 | 7.9 | 3 | 50 | | |
| 64 | 0.0 | 3.7 | 4 | 00 | | |
| 65 | 1.7 | 9.6 | 3 | 00 | | |
| 66 | 0.6 | 6.0 | 3 | 50 | | |
| 67 | 2.1 | 9.0 | 2 | 00 | | |
| 68 | 1.6 | 8.2 | 3 | 00 | | |
| 69 | 0.3 | 4.7 | 4 | 00 | | |
| 70 | 1.3 | 7.8 | 3 | 50 | | |
| 71 | 2.0 | 11.1 | 1 | 00 | 11 | |
| 72 | 0.5 | 6.1 | 3 | 00 | | |
| 73 | 1.6 | 9.6 | 2 | 50 | | |
| 74 | 1.9 | 10.2 | 2 | 00 | | |
| 75 | 2.4 | 12.2 | 2 | 00 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 7 **GSL** 100 **PAGE** 4 /4

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 76 | 2.1 | 11.0 | 2 | 00 | | |
| 77 | 0.9 | 7.7 | 3 | 00 | | |
| 78 | 2.5 | 11.0 | 2 | 00 | | |
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# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 8 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 1 | 0.3 | 5.5 | 4 | 00 | | |
| 2 | 0.9 | 7.6 | 4 | 00 | | |
| 3 | 2.8 | 11.9 | 2 | 00 | | |
| 4 | 2.6 | 10.9 | 3 | 50 | | |
| 5 | 5.1 | 16.2 | 1 | 00 | 14 | |
| 6 | 1.4 | 8.8 | 3 | 00 | | |
| 7 | 0.8 | 6.5 | 4 | 00 | | |
| 8 | 0.0 | 4.4 | 4 | 00 | | |
| 9 | 1.8 | 9.2 | 3 | 00 | | |
| 10 | 2.5 | 11.5 | 2 | 00 | | |
| 11 | 3.2 | 11.0 | 2 | 00 | | |
| 12 | 4.6 | 15.7 | 1 | 00 | | |
| 13 | 0.0 | 4.4 | 4 | 00 | | |
| 14 | 4.2 | 15.2 | 1 | 00 | 13 | |
| 15 | 1.4 | 9.0 | 3 | 00 | | |
| 16 | 5.7 | 20.4 | 1 | 00 | | |
| 17 | 1.1 | 7.8 | 3 | 00 | | |
| 18 | 0.9 | 7.0 | 3 | 00 | | |
| 19 | 0.4 | 5.8 | 4 | 50 | | |
| 20 | 2.1 | 10.5 | 2 | 00 | | |
| 21 | 1.7 | 9.2 | 3 | 00 | | |
| 22 | 2.8 | 12.3 | 2 | 00 | | |
| 23 | 1.8 | 9.9 | 3 | 00 | | |
| 24 | 0.0 | 4.4 | 4 | 00 | | |
| 25 | 0.0 | 3.9 | 4 | 00 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 8 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 26 | 0.7 | 6.3 | 3 | 00 | | |
| 27 | 2.0 | 9.0 | 2 | 00 | | |
| 28 | 2.0 | 8.5 | 2 | 50 | | |
| 29 | 0.0 | 4.0 | 4 | 00 | | |
| 30 | 0.0 | 2.8 | 4 | 00 | | |
| 31 | 1.7 | 9.0 | 3 | 51 | | |
| 32 | 1.4 | 7.3 | 3 | 51 | | |
| 33 | 3.3 | 13.2 | 1 | 00 | 10 | |
| 34 | 2.1 | 8.6 | 3 | 00 | | |
| 35 | 0.4 | 5.6 | 4 | 00 | | |
| 36 | 0.7 | 6.2 | 3 | 00 | | |
| 37 | 2.2 | 10.9 | 2 | 00 | | |
| 38 | 3.7 | 13.8 | 2 | 00 | | |
| 39 | 1.7 | 10.0 | 3 | 00 | | |
| 40 | 0.0 | 3.9 | 4 | 00 | | |
| 41 | 0.5 | 6.1 | 4 | 00 | | |
| 42 | 1.8 | 9.2 | 2 | 00 | | |
| 43 | 0.0 | 4.1 | 4 | 00 | | |
| 44 | 1.1 | 7.8 | 3 | 00 | | |
| 45 | 0.6 | 5.8 | 4 | 00 | | |
| 46 | 0.8 | 6.6 | 3 | 00 | | |
| 47 | 3.3 | 13.7 | 1 | 00 | | |
| 48 | 0.3 | 4.9 | 4 | 00 | | |
| 49 | 2.8 | 13.2 | 1 | 00 | 11 | |
| 50 | 0.2 | 4.6 | 4 | 00 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 8 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 51 | 5.8 | 17.5 | 1 | 50 | | |
| 52 | 0.0 | 3.1 | 4 | 00 | | |
| 53 | 0.0 | 3.7 | 4 | 00 | | |
| 54 | 2.0 | 10.0 | 3 | 51 | | |
| 55 | 1.0 | 8.0 | 3 | 00 | | |
| 56 | 2.6 | 12.5 | 2 | 00 | | |
| 57 | 1.0 | 8.8 | 3 | 00 | | |
| 58 | 0.5 | 6.0 | 4 | 50 | | |
| 59 | 2.6 | 11.8 | 2 | 50 | | |
| 60 | 1.0 | 7.1 | 3 | 00 | | |
| 61 | 0.5 | 5.9 | 4 | 00 | | |
| 62 | 0.4 | 5.6 | 4 | 00 | | |
| 63 | 1.7 | 8.8 | 3 | 00 | | |
| 64 | 0.0 | 1.7 | 4 | 00 | | |
| 65 | 0.0 | 3.6 | 4 | 00 | | |
| 66 | 5.1 | 17.4 | 1 | 00 | 13 | |
| VOID | | VOID | | VOID | | |
| 68 | 0.5 | 5.9 | 3 | 00 | | |
| 69 | 2.8 | 10.8 | 2 | 00 | | |
| 70 | 0.6 | 6.3 | 3 | 00 | | |
| 71 | 0.4 | 5.4 | 4 | 00 | | |
| 72 | 1.0 | 8.3 | 3 | 00 | | |
| 73 | 1.5 | 8.1 | 3 | 51 | | |
| 74 | 3.2 | 12.6 | 2 | 00 | | |
| 75 | 1.5 | 9.0 | 3 | 00 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 8 **GSL** 140 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 76 | 1.1 | 7.9 | 3 | 00 | | |
| 77 | 1.0 | 7.7 | 3 | 00 | | |
| 78 | 4.6 | 14.4 | 1 | 00 | | |
| 79 | 3.4 | 12.1 | 2 | 51 | | |
| 80 | 1.5 | 9.2 | 3 | 51 | | |
| 81 | 2.6 | 10.2 | 2 | 50 | | |
| 82 | 0.9 | 7.4 | 3 | 00 | | |
| 83 | 0.9 | 6.8 | 3 | 00 | | |
| 84 | 1.0 | 7.7 | 3 | 00 | | |
| 85 | 1.0 | 7.6 | 3 | 00 | | |
| VOID | | VOID | | VOID | | |
| 87 | 0.6 | 5.9 | 3 | 00 | | |
| 88 | 4.9 | 13.9 | 1 | 00 | 11 | |
| 89 | 2.9 | 13.0 | 2 | 00 | | |
| 90 | 1.9 | 8.1 | 3 | 00 | | |
| 91 | 1.2 | 8.3 | 3 | 00 | | |
| 92 | 1.1 | 7.9 | 3 | 50 | | |
| 93 | 4.5 | 18.2 | 1 | 00 | | |
| 94 | 1.0 | 7.5 | 3 | 00 | | |
| 95 | 2.5 | 11.5 | 2 | 00 | | |
| 96 | 0.8 | 7.3 | 3 | 00 | | |
| 97 | 1.7 | 11.2 | 3 | 00 | | |
| 98 | 2.0 | 13.3 | 2 | 00 | | |
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# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 9 **GSL** 60 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 1 | 4.3 | 14.4 | 1 | 51 | | |
| 2 | 2.6 | 10.9 | 2 | 00 | | |
| 3 | 1.6 | 9.4 | 3 | 00 | | |
| 4 | 4.0 | 16.9 | 1 | 00 | 12 | |
| VOID | | VOID | | VOID | | |
| 6 | 3.2 | 13.2 | 2 | 00 | | |
| 7 | 0.9 | 6.9 | 3 | 50 | | |
| 8 | 0.0 | 3.7 | 4 | 00 | | |
| 9 | 1.0 | 8.3 | 3 | 00 | | |
| 10 | 0.0 | 4.4 | 4 | 00 | | |
| 11 | 1.0 | 7.6 | 3 | 00 | | |
| VOID | | VOID | | VOID | | |
| 13 | 1.7 | 9.0 | 3 | 50 | | |
| VOID | | VOID | | VOID | | |
| 15 | 2.3 | 11.0 | 2 | 00 | | |
| 16 | 4.6 | 15.0 | 1 | 00 | 13 | |
| 17 | 2.4 | 9.7 | 2 | 50 | | |
| 18 | 2.3 | 9.7 | 2 | 00 | | |
| 19 | 1.8 | 9.4 | 2 | 00 | | |
| 20 | 3.4 | 14.5 | 1 | 50 | 12 | |
| 21 | 1.4 | 9.5 | 3 | 00 | | |
| VOID | | VOID | | VOID | | |
| 23 | 2.5 | 11.4 | 2 | 00 | | |
| 24 | 4.6 | 14.0 | 1 | 50 | 11 | |
| 25 | 0.0 | 4.4 | 4 | 00 | | |

# BARNEY PASTURE GROWING STOCK LEVEL STUDY

## LEAVE TREES - 1981 ESTABLISHMENT MEASUREMENTS

**PLOT NO.** 9 **GSL** 60 

| TREE NUMBER | DBH (inches) | HEIGHT (feet) | CROWN CLASS | TREE QUALITY | AGE AT DBH | |
|---|---|---|---|---|---|---|
| 26 | 1.5 | 9.6 | 3 | 50 | | |
| 27 | 3.4 | 10.7 | 2 | 50 | | |
| 28 | 4.8 | 15.9 | 1 | 50 | 12 | |
| 29 | 2.3 | 10.2 | 2 | 00 | | |
| VOID | | VOID | | VOID | | |
| 31 | 3.2 | 12.4 | 2 | 00 | | |
| 32 | 2.2 | 9.3 | 2 | 50 | | |
| 33 | 2.3 | 11.0 | 2 | 00 | | |
| VOID | | VOID | | VOID | | |
| 35 | 2.2 | 10.9 | 2 | 00 | | |
| 36 | 0.8 | 7.3 | 4 | 00 | | |
| 37 | 0.0 | 3.8 | 4 | 00 | | |
| 38 | 1.6 | 8.1 | 3 | 50 | | |
| 39 | 1.0 | 6.6 | 4 | 50 | | |
| 40 | 1.5 | 7.8 | 3 | 50 | | |
| VOID | | VOID | | VOID | | |
| 42 | 2.0 | 8.6 | 3 | 50 | | |
| 43 | 3.0 | 11.6 | 2 | 50 | | |
| VOID | | VOID | | VOID | | |
| 45 | 2.7 | 10.3 | 2 | 50 | | |
| 46 | 3.0 | 11.2 | 2 | 00 | | |
| 47 | 3.6 | 11.6 | 1 | 50 | 11 | |
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